

**ANNUAL ENVIRONMENTAL HEALTH SURVEY SUMMARY
CALIFORNIA DEPARTMENT OF THE YOUTH AUTHORITY
FISCAL YEAR 1998-99**

INTRODUCTION

The Institutions Program of the Department of Health Services (DHS) conducts annual environmental health surveys of camps, schools and other facilities operated by the California Department of the Youth Authority (CDYA). The annual surveys identify safety problems, evaluate environmental health conditions and provide recommendations to assure a safe environment. The survey reports provide an objective evaluation upon which administrative decisions can be made to assure a safe and healthy environment for wards and staff.

SPECIALIZED SERVICES FOR FISCAL YEAR 1998-99

In addition to the annual survey, the Institutions Program often provides specialized services as requested and jointly agreed upon by our respective departments. These specialized services include environmental health and safety training, consultation, construction plan review, epidemiological studies and assistance with designated studies or pilot projects.

SUMMARY OF FINDINGS FOR FISCAL YEAR 1998-99

This annual report provides a summary and discussion of the conditions that were noted during the surveys. We suggest that you review the individual survey reports for specific information regarding each youth correctional facility.

MAIN INSTITUTIONS

TOXIC SUBSTANCES AND HAZARDOUS WASTE MANAGEMENT

A hazardous waste storage building should be provided at the Fred C. Nelles Youth Correctional Facility in order to properly store hazardous materials generated on site. Cleaning of the hazardous waste storage building was needed at the Heman G. Stark Youth Correctional Facility, Preston School of Industry, and Southern Reception Center and Clinic. Secondary containment for the safe storage of wet cell batteries should be provided at the Northern Reception Center and Clinic.

INJURY AND ILLNESS PREVENTION PROGRAM (IIPP)

Injury and Illness Prevention Program elements, documents and training were not uniform at the various schools. Each facility should review their IIPP to insure that all the proper elements are included. These elements should include confined spaces, respiratory protection, hearing conservation, blood borne pathogen, hazard identification procedures and safe work practices for each position. Improvement in the Hazard Communication / Right to Know program is needed at most of the schools.

Deficiencies regarding unorganized and incomplete Material Safety Data Sheets (MSDS) were found at the Fred C. Nelles Youth Correctional Facility, Northern Reception Center and Clinic, Heman G. Stark Youth Correctional Facility, Preston School of Industry, and the Northern California Youth Center. The MSDS notebooks should have a table of contents with tabs that highlight the chemical names, first aid requirements, safe storage practices, personal protective equipment, cleanup and disposal procedures. All staff should receive training on use of the MSDS notebook.

Respirators were observed in use in several institutions. A written program should be developed for each facility that describes the procedures for operating respiratory protection equipment. The written operating procedures should include instructions related to:

- Selecting and issuing respirators
- Training employees
- Conducting respirator facepiece fit tests
- Conducting facepiece seal fit checks
- Inspecting respirators
- Cleaning and sanitizing respirators
- Maintaining and repairing respirators
- Storing respirators
- Respirator limitations
- Medical surveillance

A section in the code of safe practices should refer to respirator use for every job task that a respirator is required.

WATER

Most of the CDYA facilities obtain their domestic water from off-site municipal water purveyors. The Heman G. Stark Youth Correctional Facility, Ventura Youth Correctional Facility, and Preston School of Industry also have on-site water supply systems for purposes of irrigation and back-up supply.

Most institutions have an outside contract to test the back flow prevention devices located at the institution. The cross connection control program at the Northern California Youth Center should be reactivated and the back flow prevention devices tested annually. Proper back flow prevention device testing equipment should be provided at the Preston School of Industry.

SEWAGE

Most of the CDYA facilities discharge wastewater to municipal wastewater treatment systems. No significant deficiencies were noted.

SOLID WASTE

The management of solid waste, from the point of generation through disposal, is reviewed to ensure that waste is disposed of through the appropriate waste stream, that refuse containers and storage areas are maintained in a manner not to create a nuisance, and that staff and wards are not exposed to unnecessary health or safety risks at any point in the process.

An accumulation of food residue was noted inside the dumpsters located outside the main kitchen at the Northern California Youth Center and Ventura Youth Correctional Facility. The solid waste hauling contractors at the facilities should be contacted to increase the rotation frequency for the cleaning of the refuse containers. To reduce the build-up of organic material, food waste should be placed in plastic bags and the bags tied before being placed in disposal containers.

Some of the CDYA facilities have initiated a recycling program. All of the facilities should try to separate recyclable materials at the point of origin when feasible to minimize the volume of solid waste from CDYA facilities to the local landfills.

SWIMMING POOLS

Swimming pools are evaluated for the structural integrity, water quality, sanitation, routine maintenance and safety aspects of pool operation.

The swimming pools at the Ventura Youth Correctional Facility and Preston School of Industry were satisfactory except for some record keeping at Ventura and maintenance at Preston. The swimming pool at the Fred C. Nelles Youth Correctional Facility is being renovated. Plans have been submitted for the renovation of the swimming pool at the Heman G. Stark Youth Correctional Facility. Increased maintenance and structural repairs should be provided for the swimming pools at the Northern California Youth Center, Northern Reception Center and Clinic, and El Paso de Robles Youth Correctional Facility. The swimming pool at the Southern Reception Center and Clinic is closed.

FOOD SERVICES

All of the youth correctional facilities have developed a Hazard Analysis Critical Control Point (HACCP) program and are actively working towards the implementation of a fully documented and functional system. The HACCP system focuses on establishing control procedures for those steps in food processing where mistakes in handling or preparation could result in a foodborne illness. The Institutions Program is available to provide basic and advanced food safety or HACCP training to food service and custody staff assigned to the kitchens.

As mentioned in the prior year report, the blast chillers were overcrowded at the Northern California Youth Center. To accommodate the volume of food to be cooled, four to six carts, rather than the two carts recommended by the manufacturer were loaded into each blast chill unit,

resulting in less than optimum cooling patterns in the racks of food and extended blast chill processing times. The production schedule for foods requiring blast chilling should be staggered or reduced and, where necessary, additional blast chilling equipment should be purchased. In the interim, it is recommended that the temperature of foods be monitored at three levels on each rack to ensure that all of the food cools to less than 41°F in no more than four (4) hours.

Refrigeration and/or freezer units at the Northern Reception Center and Clinic, Heman G. Stark Youth Correctional Facility, Preston School of Industry and Ventura School kitchens were extremely overcrowded preventing adequate air circulation around food items and impeding product rotation. The stored inventory should be reduced or additional refrigeration or freezer space should be provided to facilitate proper storage, rapid cooling of cooked foods and thawing of frozen foods. Refrigeration units at these facilities should be adjusted to maintain ambient air temperatures of 41°F or below.

Structural maintenance problems were noted at several youth correctional facilities. Common deficiencies included broken and/or missing floor and coving tiles, missing vacuum breakers on hose bibbs, holes in walls and moisture damaged ceilings in the scullery areas. It is strongly recommended that a new kitchen be constructed at the Fred C. Nelles School. The existing kitchen is deteriorating and is not designed for the volume of meals produced. Preventative maintenance (PM) programs should be developed and implemented at the Northern California Youth Center. Without an effective PM program, equipment wears out pre-maturely and must be replaced frequently.

The use of excessive amounts of water to clean the kitchens should be discontinued to prevent the ongoing water damage to lower kitchen walls and grout between the floor tiles. Additionally, food waste and detergents should not be washed out to the storm drain runoff, but to the sanitary sewer to prevent contamination of the environment.

SERVING KITCHENS

Conditions were satisfactory in the serving kitchens of the El Paso de Robles Youth Correctional Facility and Preston School of Industry. Routine cleaning and sanitizing of the ice machines should be provided at the Northern California Youth Center and Heman G. Stark Youth Correctional Facility.

Damaged and deteriorated walls, floors and ceilings were reported at the Northern California Youth Center and Fred C. Nelles Youth Correctional Facility. The wood shelving at the Ventura Youth Correctional Facility serving kitchens should be replaced to minimize rodent harborage. Remodeling the serving kitchens to replace the old, damaged and deteriorated surfaces should be considered.

In order to minimize the growth of disease causing organisms, proper food temperatures must be maintained at all times. A method of controlling food temperatures during transport at the Fred C. Nelles Youth Correctional Facility should be implemented. Temperature controls are

also needed at the Ventura Youth Correctional Facility where a significant amount of time may occur between delivery of the food from the main kitchen and placement of the food in a mechanical hot or cold holding unit.

CAFETERIAS

The staff cafeterias at the Fred C. Nelles Youth Correctional Facility, Heman G. Stark Youth Correctional Facility and Ventura Youth Correctional Facility are operated as a vocational education program. Hazard Analysis Critical Control Point (HACCP) programs should be developed for all CDYA facility cafeterias. Staff should be given the opportunity to attend HACCP classes as provided by the Institutions Program or any other facility providing formalized instruction on the application of HACCP principles in the production and service of food. The information provided would help staff identify critical issues within the kitchen, develop ward/worker training materials based on the needs identified, and enhance the overall expertise of the kitchen staff. HACCP principles can be practiced by the ward vocational education students as preparation for future employment when they are released from custody.

CANTEENS

The conditions of the canteens were satisfactory at the Northern Reception Center and Clinic, Heman G. Stark Youth Correctional Facility and Ventura Youth Correctional Facility. The leak in the ceiling of the canteen storage area at the Ventura Youth Correctional Facility should be repaired. The carpeting on the floor of the Northern California Youth Center canteen presents a cleaning problem and should be removed. All floors should be smooth and easily cleanable.

Overcrowded canteens were observed at the Preston School of Industry and Northern California Youth Center. It is recommended that additional space be provided to eliminate the overcrowded conditions.

WAREHOUSES

Most of the warehouses are in good condition at the youth correctional facilities. The warehouse at the Fred C. Nelles Youth Correctional Facility was overcrowded. Wall damage has occurred at the Southern Reception Center and Clinic.

All facility warehouses receive and store food for use by the main kitchens. As part of the Hazard Analysis Critical Control Point (HACCP) program practiced by the culinary staff, the warehouse staff should document the ambient temperature inside the refrigeration units used to store food. Repairs or movement of the food should be initiated if one of the refrigeration units fails to maintain the appropriate food holding temperature. The temperature should also be documented when receiving potentially hazardous foods as one method of checking for temperature abuse. The time that the temperature is observed should also be noted on the appropriate documentation form.

A cockroach infestation was noted at the Southern Reception Center and Clinic commissary warehouse and rodents were observed at the Northern California Youth Center support warehouse. The pest control technician should be notified whenever infestations are noted so that eradication procedures may be initiated.

MEDICAL SERVICES

Several deficiencies were noted at the CDYA facilities regarding the storage and removal of biohazardous wastes from the point of origin. Biohazardous waste storage containers should have appropriate biohazardous waste labels. The biohazardous waste should be transported to the main collection areas in leak proof and puncture resistant rigid containers. All biohazardous waste containers must be labeled and the main collection areas should also have biohazardous waste warning signs. Biohazardous wastes may not be stored for more than seven days.

An approved exhaust ventilation should be provided to the x-ray darkroom at the Northern California Youth Center. A properly installed backflow prevention device should be provided to the x-ray darkroom at the Northern California Youth Center. Eyewash stations should be installed in the medical areas of the Preston School of Industry and Southern Reception Center and Clinic.

The California Occupational Safety and Health Administration has established new safety requirements intended to reduce needle sticks and other sharps injuries that can cause exposure to blood borne pathogens. These new requirements took full effect on July 1, 1999. We recommend that the medical staff working at the facilities be supplied with needles that contain engineered sharps injury protection technology to prevent future needle stick injuries. The medical staff should become familiar with the changes in the blood borne pathogen standards so that the most appropriate mechanical safety devices may be used.

LAUNDRY

Problems and deficiencies with ward safety, training and personal protective equipment were noted in the laundry areas at five of the eight youth correctional facilities. Hazard Communication/Right to Know safety training should be provided to all wards that work in the laundries. The hazard communication program should include information on universal precautions, blood borne pathogen protection and the proper use of personal protective equipment. Wards that handle soiled laundry or infectious linens should be provided with gloves, aprons, masks or other safety devices that will protect them from the spread of disease during laundering activities.

The wall damage in the laundry should be repaired at the Southern Reception Center and Clinic and Northern California Youth Center.

VECTOR CONTROL

No pest infestations were observed at the Fred C. Nelles Youth Correctional Facility, El Paso de Robles Youth Correctional Facility, Northern Reception Center and Clinic, and Heman G. Stark Youth Correctional Facility. The pest control technician at these institutions should be commended for their efforts.

Cockroach activity was noted at the Ventura Youth Correctional Facility, Northern California Youth Center, and Southern Reception Center and Clinic warehouses. Cracks, crevices and other openings in the walls, ceilings and equipment should be sealed to prevent harborage and breeding areas. All infested areas should be thoroughly cleaned to remove dead insects, insect parts, egg cases and droppings. Control efforts should be routinely monitored to determine the effectiveness of the program.

A large population of feral cats continues to be a problem at the Northern California Youth Center. Since feral cats can transmit rabies, fleaborne diseases and internal parasites, they are considered a potential health hazard. It is recommended that trapping and relocation programs be intensified to eliminate the cat population.

Evidence of rodent activity was noted at the Northern California Youth Center and Preston School of Industry. The areas involved should be cleaned and all rodent droppings removed. Thresholds or rodent-proof weather-stripping should be installed on all exterior doors to reduce the opening between the door and the doorframe to less than one-quarter inch. Openings in floors, walls, ceilings and around piping and conduit should be sealed. Hardware cloth screening should be installed on all vents. Improved housekeeping measures should be initiated to eliminate harborage and breeding areas. The rodent control efforts should be monitored routinely to determine the effectiveness of the program.

HOUSING

The structural damage and deterioration of the housing units at the youth correctional facilities continues to be a problem.

Moisture damaged shower and restroom walls and ceilings, due to inadequate exhaust ventilation, were observed at several of the youth correctional facilities. To effectively remove excess moisture from shower enclosures, the exhaust system should be capable of providing at least four air changes per hour (ten air changes per hour is recommended). Shower exhaust ventilation systems should be monitored on a regular basis to verify that they are working and defective systems should be repaired on a priority basis to minimize structural damage. Exhaust and return air vent grills should be thoroughly cleaned on a routine basis to maximize the efficiency of the ventilation system.

The deterioration of tiles and grout in the restroom and shower enclosures is a reoccurring problem at many of the youth correctional facilities. To prevent the deterioration of floors and

walls and the costs associated with major repairs, it is recommended that timely repair and/or replacement of damaged tiles and grout be given a high priority.

Improved and more frequent cleaning should be provided in the shower enclosures at most of the facilities. Shower walls, ceilings and floors should be smooth and easily cleanable. A standard cleaning procedure should be developed for all showers, restrooms and common living areas. The procedure should emphasize the use of appropriate cleaning products to remove soap, grease, bacteria, mildew and odors. It is highly recommended that the use of abrasive cleansers on ceramic tile, stainless steel and plexiglas be discouraged. These types of cleaners cause scratches on these surfaces.

Safety training issues for the ward clean-up crews were noted at the Fred C. Nelles Youth Correctional Facility, El Paso de Robles Youth Correctional Facility, Heman G. Stark Youth Correctional Facility and Ventura Youth Correctional Facility. A Code of Safe Work Practices should be developed for the tasks performed by the clean-up crew. The Code should include all identified chemical, electrical, mechanical and/or biological safety hazards. An on-going, documented training program should be implemented to ensure that all wards assigned to clean the residences receive both initial and periodic training on safe work practices and the proper use of any required personal protective equipment (PPE).

Gloves, safety glasses and protective outerwear should be available in the housing units for use by wards assigned to perform janitorial chores. Any PPE required by the MSDSs should be readily available and should be stored in a manner that prevents contamination. Ward janitors should be supervised to ensure that they use the required PPE appropriately.

Electric razors for grooming purposes are available in the housing units at the Heman G. Stark Youth Correctional Facility and Preston School of Industry. Since most of the housing units have only three to four electric razors to serve ward populations of up to forty individuals, the razors must be cleaned and disinfected after each use. However, the procedures required to clean and disinfect the razors are not well understood by the staff. Written procedures should be developed with clear instructions for the disinfection process. The removable shaver parts should be cleaned with soap and water and treated with an EPA registered disinfectant with demonstrated bactericidal, fungicidal and virucidal activity. The disinfectant solution should be prepared in accordance with manufacturer instructions. A container of sufficient size to completely submerge the shaver component parts should be provided and the manufacturer's instructions for contact time should be strictly followed. For most of the approved disinfectants, the contact time is at least ten (10) minutes. As an alternative, consideration should be given to the purchase of individual electric razors for each of the wards assigned to the housing units.

MISCELLANEOUS

Common deficiencies in the vocational education and plant operations shops included missing or inoperative emergency eyewash units, missing or improperly maintained personal protection equipment, improper compressed gas storage and inappropriate flammable materials

lockers. These and other safety issues identified in the individual youth correctional facility survey reports should be corrected on a priority basis.

A hazard communication training program should be implemented in all shops at the El Paso de Robles Youth Correctional Facility, Fred C. Nelles Youth Correctional Facility and Heman G. Stark Youth Correctional Facility. This should be considered a high priority. All of the MSDS binders should be reorganized to comply with recommendations of previous surveys and applicable regulations. All personal protective equipment at the Northern California Youth Center should be thoroughly cleaned and properly stored.

CONSERVATION CAMPS

TOXIC SUBSTANCES AND HAZARDOUS WASTE MANAGEMENT

The toxic substances management program at the camps continues to improve. Spill contingency plans and secondary containment of hazardous materials are items noted in the reports as areas of concern.

INJURY AND ILLNESS PREVENTION PROGRAM (IIPP)

As stated in the previous report, proper training in the IIPP should be provided for staff and wards at the Mount Bullion and Washington Ridge camps. The training documentation should include the use of MSDS when handling chemicals and the use of personal protective equipment designated for a particular chemical. A lock out /tag out program should be provided for safety when machinery is being serviced, repaired, or cleaned.

WATER

In order to reduce the amount of iron and manganese from the potable water supply the ozone disinfection and filtration treatment equipment should be installed on the potable water supply at the Ben Lomond Youth Conservation Camp as soon as possible. No problems were noted with the water supply at the Pine Grove Youth Conservation Camp, Mount Bullion or Washington Ridge Camps.

SEWAGE

No problems were noted with the sewage disposal at the Pine Grove Youth Conservation Camp, Mount Bullion or Washington Ridge Camps.

SOLID WASTE

The interior surfaces of the solid waste dumpsters at the Mount Bullion Youth Conservation Camp and the culinary dumpsters at the Pine Grove Youth Conservation Camp were soiled with organic matter, which could become an attractant and breeding location for flies, ants, and other insects. The solid waste dumpsters are currently not cleaned by the solid waste

company or onsite staff with any frequency. These containers should be scheduled for routine cleaning to prevent accumulation of food and other debris. The area surrounding the containers was well maintained. No litter or other waste was noted during the survey.

No problems with solid waste disposal were noted at the Ben Lomond Youth Conservation Camp, or Washington Ridge Youth Conservation Camp.

FOOD SERVICE

To minimize the potential for foodborne illness outbreaks, it is recommended that the development of a Hazard Analysis Critical Control Program (HACCP) plan be made a priority during the next year at the Ben Lomond Youth Conservation Camp, Pine Grove Youth Conservation Camp and Mount Bullion Youth Conservation Camp. HACCP focuses on those steps in food processing where food-handling errors could result in a foodborne illness. By monitoring food at critical control points during receiving, storing, processing, holding, transporting and serving, kitchen staff can make appropriate decisions to ensure food safety.

It is especially important that the temperature of potentially hazardous foods be monitored and recorded upon removal from the ovens to verify that the food has been cooked sufficiently to destroy all microorganisms that cause foodborne illness. To ensure that grilled hamburgers are cooked adequately to kill *E. coli* and that grilled chicken is cooked sufficiently to kill *Salmonella sp.*, it is recommended that the final cooking temperatures of these products be monitored and documented. Raw chicken should be cooked to at least 165°F in the thickest part of the meat. Likewise, ground beef products should be cooked to at least 157°F.

The food temperature documentation logs should be reviewed on a routine basis by the food manager and/or supervising cooks to verify that potentially hazardous foods are not being held in the temperature danger zone for more than the allowable time frames and to identify necessary changes in operation and/or equipment needs. This information will also be valuable in designing a HACCP plan that fits the needs of the camps.

Many improvements have been made at the Washington Ridge Youth Conservation Camp food service areas. Staff should be commended for their efforts to improve the structure and function of the food facility.

CANTEENS

The lack of adequate space at the Mount Bullion Youth Conservation Camp and Pine Grove Youth Conservation Camp canteens leads to other food storage and handling problems. It is recommended that the canteen be relocated to a more efficient or larger, secure, rodent proof space.

LAUNDRY

No deficiencies were noted in the laundry areas of the camps.

VECTOR CONTROL

Warehouses should be maintained free of debris and clutter to minimize habitation by mice and squirrels.

HOUSING AND MISCELLANEOUS

Procedures for ward haircutting should be developed for the CDYA camps. Several diseases may be transmitted from one person to another with barber tools. These include fungi such as *Tinea capitis*, various infectious bacteria and viral infections such as HIV and *hepatitis B*.

All barbering tools including clipper heads, scissors and other sharp barber tools should be cleaned with soap and water and then treated with an EPA registered disinfectant between haircuts and before storage. The disinfectant should have a demonstrated bactericidal, fungicidal and virucidal activity. A container of sufficient size to completely submerge the barber tools should be provided and the manufacturer's instructions for contact time should be strictly followed. A written procedure should be developed to ensure that barber tools are cleaned and sanitized after use on each customer.

The residual disinfectant in the swimming pool at Mount Bullion Youth Conservation Camp should be tested on a routine basis during the week and on the weekends.

CONCLUSIONS AND RECOMMENDATIONS

Our staff of Registered Environmental Health Specialists will continue to perform surveys during the year to identify environmental health and safety issues and will work with the Department of the Youth Authority to develop corrective and preventive measures. This year we will be offering "Tailgate Training Sessions" as part of our surveys. These sessions are designed to respond to questions and provide subject matter instruction to the staff.

We believe that significant progress has been made to improve the environmental health and safety conditions at the Youth Authority facilities over the past several years. The cooperative efforts of the facility administrators and staff have led to the success of the program. Significant improvement has been made in the Injury and Illness Prevention Program, Hazard Communication/Right to Know program, Medical Waste Management program, Cross Connection Control program, Toxic Substances and Hazardous Waste Management programs, Recycling programs, Hazardous Analysis and Critical Control Point programs and Bloodborne Pathogen programs. We will continue to assist the individual Youth Authority facilities with the on-going evolution and maintenance of these environmental health and safety programs by providing consultation, plan review, training and assistance with special projects. The environmental health survey process will "test" the systems in place and will provide feedback to the Department of the Youth Authority.